

Abstract

A gas stream containing e.g. molecular hydrogen is used for the regeneration of a catalyst for NO_x and SO₂ removal from the flue gas of a gas turbine. In order to reduce the consumption of regeneration gas, the gas inlet is located between the SCOSO_x catalyst (2) and the SCONO_x catalyst (3). The regeneration gas leaves the catalyst chamber upstream of the SCOSO_x catalyst and is recycled. For the regeneration of the SCONO_x catalyst and to keep SO₂ containing gas from entering the SCONO_x catalyst, a second regeneration gas inlet is located downstream of the SCONO_x catalyst. The regeneration gas entering the catalyst chamber through this port passes the SCONO_x (3) and the SCOSO_x catalyst (2). The direction of the flow in the SCONO_x catalyst can also be reversed. In another example, regeneration gas outlets are located both upstream of the SCOSO_x and downstream of the SCONO_x catalyst. But, only the regeneration gas from the SCONO_x catalyst is recycled.